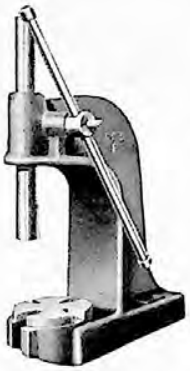
SHELDON MACHINE COMPANY

3253 - 3255 Cottage Grove Avenue, Chicago

SHELDON ARBOR PRESSES

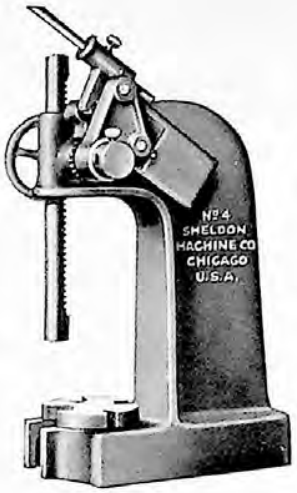
No. 1

No. 2

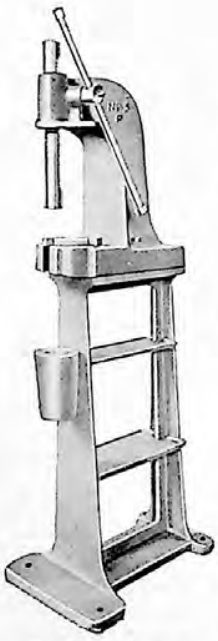


No. 3 P
Plain Lever

No. 3 R
Ratchet Lever



No. 4
Compound Lever



No. 3 P Plain Lever
with Floor Stand

Sheldon Arbor Press frames are made of semi-steel, the metal being properly distributed, giving a light and exceptionally strong casting.

Rams and pinions are made of alloy steel, heat treated. Large stub tooth is used.

Rams are carefully fitted, insuring proper alignment.

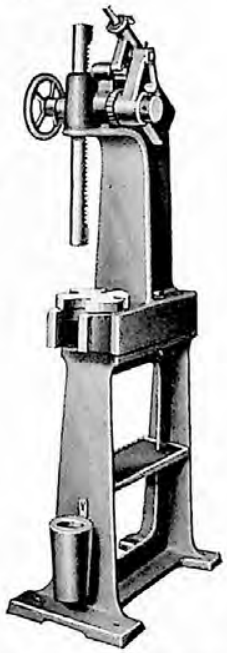
Nos. 1 and 2 presses are furnished only with plain levers. No. 3 presses are furnished with either plain or ratchet levers.

No. 4 presses have only compound levers.

Floor Stands

Floor stands can be furnished for the Nos. 2, 3 and 4 presses.

They are made of semi-steel, are well ribbed and of heavy construction. They are provided with removable shelves and wood pots for catching mandrels, tools, etc.



No. 4, Compound Lever
with Floor Stand

	No. 1	No. 2	No. 3 P	No. 3 R	No. 4	Floor Stands		
						No. 1	No. 2	No. 3
Largest Diameter Will Take....inches	7	12	15	15	18			
Largest Diameter Mandrel.....inches	1⅛	1¾	2½	2½	3⅛			
Height over Plate.....inches	4¼	8¼	13¾	13¾	18¼			
Maximum Height Will Take.....inches	4¾	9	14¾	14¾	19½			
Size of Ram.....round inches	1	1½	1⅞	1⅞	1½			
Length of Ram.....inches	7¾	13½	21	21	26			
Movement of Ram.....inches	5	9¼	15	15	20			
Leverage	25 to 1	35 to 1	48 to 1	72 to 1	100 to 1			
Pressure on Ram.....tons	¾	2	5	7½	10			
Height .....inches	9½	17	26	26	33½	36	35	30
Dimensions of Base.....inches	4x10	6¼x17	8x20	8x20	8x24	14x19	14x22	14x25
Shipping Weight .....pounds	20	85	170	240	360	140	150	195
Price, each	**$10.00**	**20.00**	**30.00**	**40.00**	**75.00**	**15.00**	**20.00**	**30.00**

SHELDON VISES

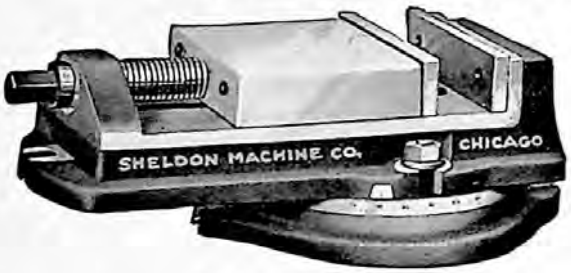
SHELDON MILLING MACHINE VISES

The bodies are made of semi-steel with the metal so distributed to give maximum strength. Screws are exceptionally large in diameter and are made of special alloy steel. Both vises have removable steel jaws.

Plain Vise

The plain vises are of improved flanged construction with cross slots and side ears so they can be bolted either lengthwise or across the work table.

No.	3	4	6	8
Width of Jaws.....inches	3 ½	4 ½	6 ½	8 ½
Depth of Jaws.....inches	1 ⅜	1 ⅝	2	2 ½
Jaws Open .....inches	2 ½	3 ½	4 ½	7
Weight .....pounds	15	30	70	160
Price, each	$16.00	20.00	30.00	45.00

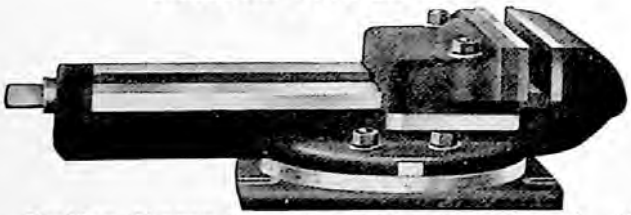


Swivel Vise

These are plain vises with the addition of circular bases, graduated in degrees on the circumference, which permit them to be set at any angle to the table. They are clamped to the base by two Tee bolts, and can be quickly removed from the base and used as plain vises when desired.

No.	3	4	6	8
Width of Jaws.....inches	3 ½	4 ½	6 ½	8 ½
Depth of Jaws.....inches	1 ⅜	1 ⅝	2	2 ½
Jaws Open .....inches	2 ½	3 ½	4 ½	7
Weight .....pounds	25	45	90	225
Price, each	$20.00	24.00	40.00	60.00

SHELDON SHAPER VISES



Sheldon Shaper Vises are made of semi-steel. Although designed primarily for use on shapers, they are equally well adapted for planers and other machines where the heaviest service is required.

The large base is provided with four bolts to hold it rigidly to table. Base is graduated in degrees so that vise can be quickly set at any desired angle.

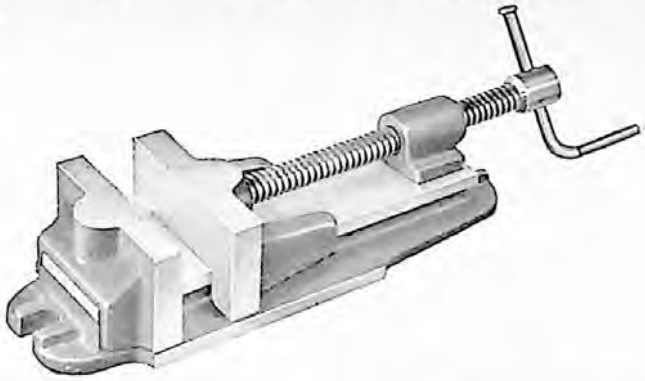
The screw is large in diameter with accurately cut acme threads and is supported in bearings on both ends. Thrust is taken on a hardened and ground steel washer in the stationary jaw.

Each vise is furnished complete with wrench.

No.	1	2
Size of Jaws.....inches	12x2 ½	14x3
Vise Opens .....inches	12 ½	13
*Bolt Hole Spacing.....inches	7 ½	8 ½
Weight .....pounds	230	285
Price, each	$120.00	135.00

*Distance between holes can be changed at no extra charge.

SHELDON GEM DRILL PRESS VISES



Sheldon Gem Drill Press Vises are made in two sizes with jaws 4 and 5 inches wide, to provide accurate, rugged vises at a low price.

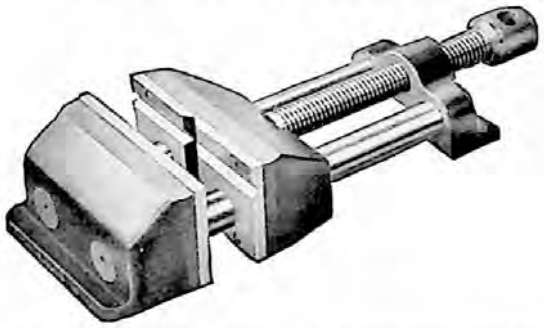
The jaw ends are milled square with the base so these vises can be placed on either side when desired.

Large diameter accurately cut screws are used.

The new design adjustable crank handle is convenient and rapid. The Gem Vise can be used for making simple drill jigs by placing locating stops on the stationary jaw and a plate for drill bushings on the bosses provided on top of jaws.

No.	G 4	G 5
Width of Jaws.....inches	4	5
Depth of Jaws over Plate.....inches	1 ½	2
Full Depth of Jaws.....inches	2 ½	3
Jaws Open .....inches	5	6
Weight .....pounds	15	25
Price, each	$6.00	9.00

SHELDON DRILL PRESS VISES



The Sheldon Drill Press Vise has been designed to meet the demand for a light weight but strong vise for general purpose work.

Stationary and movable jaws are box section semi-steel castings, affording the greatest possible strength with exceptionally light weight. They are faced with steel plates, the plate on the movable jaw being furnished with V grooves for holding round stock either in a vertical or a horizontal position.

Guide bars are hardened and ground. Screw is large diameter with accurately cut acme thread. Thrust is taken on a hardened and ground steel washer.

All parts are machined in jigs and are interchangeable.

No.	D 4	D 6	D 9
Width of Jaws.....inches	4 ½	6 ½	9
Depth of Jaws over Guide Bars .....inches	1 ⅝	1 ¾	2 ½
Full Depth of Jaws.....inches	3	3 ½	4 ½
Jaws Open .....inches	4	6	9
Weight .....pounds	15	35	70
Price, each	$12.00	18.00	24.00

SHELDON IMPROVED GRINDERS
Nos. T 17 and ST 17

The Sheldon Grinder is simple in design, compact and perfectly balanced. It is built for hard service. There are no connecting rods or reciprocating parts to burn up or become loose. Power is applied direct to the rotor shaft which also serves as the wheel mounting.

The body is made from one piece of tubing, which not only insures perfect alignment of rotating parts, but is so constructed that it covers one side of the grinding wheel, affording ample protection for the operator.

The motor is of the pneumatic turbine type mounted on standard radial ball bearings, and is lubricated by the Alemite system. It has ample power to pull 6-inch and 9-inch face coarse grain grinding wheels.

Each grinder is furnished complete with one grinding wheel, Alemite grease gun, and wheel dresser.

No.	T 17	ST 17
Length ..... inches	15	19
Diameter Grinding Wheel ..... inches	2 3/4	2 3/4
Face of Grinding Wheel ..... inches	6	9
Size Hole ..... inches	3/4	3/4
Weight ..... pounds	16	18
Price, each	$85.00	$95.00

SHELDON ANGLE PLATES

These Plates are made of semi-steel, heavily ribbed, insuring close grained rigid castings.

SHELDON 90° ANGLE PLATES
With Second Face and T Slots

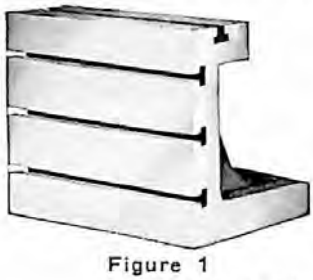


Figure 1

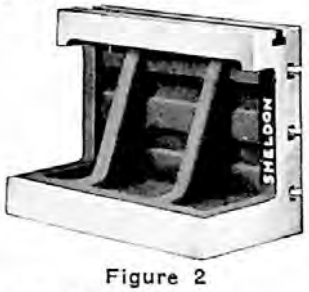


Figure 2

Specifications and Prices

No.	Size Face, Inches	Size Top, Inches	Size Base, Inches	T Slots	Weight, Lbs.	Price, Each
1T	3 3/4 x 5	1 1/2 x 5	2 1/2 x 5	4—1/4"	5	$10.00
2T	6 x 7	2 1/2 x 7	4 1/2 x 7	4—1/2"	20	15.00
3T	8 x 9	3 x 9	6 x 9	4—1/2"	38	20.00
4T	10 x 12	3 1/2 x 12	7 3/4 x 12	4—5/8"	75	30.00
5T	14 x 16	4 x 16	9 x 16	4—5/8"	170	45.00

SHELDON 90° PLAIN ANGLE PLATES

Figure 3

Figure 4

Specifications and Prices

No.	Size Face, Inches	Thickness Face, Inches	Size Base, Inches	Weight, Lbs.	Price, Each
1P	3 3/4 x 5	1/2	2 1/2 x 5	4	$ 8.00
2P	6 x 7	3/4	4 1/2 x 7	15	10.00
3P	8 x 9	1	6 x 9	30	14.00
4P	10 x 12	1 1/4	7 3/4 x 12	60	20.00
5P	14 x 16	1 1/2	9 x 16	145	30.00

SHELDON GENERAL PURPOSE GRINDER
No. T 18

This is a simple, rugged, general purpose tool. It is compact and perfectly balanced.

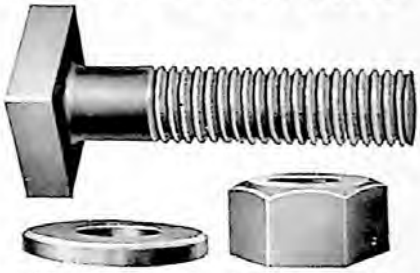
The motor is of the pneumatic turbine type, mounted on standard radial ball bearings, lubricated by the Alemite system, and is of the same general design as the motors used in our No. 17 grinders. It has ample power to pull a 6-inch diameter 1-inch face grinding wheel. With 80 pounds of air the motor speed is approximately 5000 r.p.m., which gives the theoretically correct peripheral speed for this size wheel.

Size of grinding wheel is 6 inches in diameter, 1-inch face, and 5/8-inch hole. Length over all, 20 inches.

Furnished complete with grinding wheel and Alemite grease gun.

Weight, 15 pounds. **Price, each $85.00**

SHELDON "T" SLOT BOLTS



Sheldon "T" Slot Bolts are turned from the bar. Accurately machined heads fit T slots perfectly. Heat treated. Prices are per hundred, without nuts and washers.

Length Under Head	DIAMETER 1/2" Head 3/4" Sq. x 1/4"	5/8" Head 1-1/16" Sq. x 5/16"	3/4" Head 1-3/16" Sq. x 7/16"
1 1/2"	$10.00	$10.00	
2"	10.00	10.00	
2 1/2"	10.00	16.00	$24.00
3"	11.00	17.00	26.00
3 1/2"	12.00	18.00	28.00
4"	13.00	20.00	30.00
4 1/2"	14.00	21.00	31.00
5"	15.00	22.00	33.00
5 1/2"	16.00	23.00	35.00
6"	17.00	24.00	36.00

SHELDON NUTS

Sheldon nuts are extra thick, made from special alloy steel, heat treated.

Nuts are furnished only with U. S. standard threads.

Specifications

Number	Bolt Dia.	Threads Per Inch	Thickness	Across Flats	Price Each
N-20	1/2"	13	5/8"	7/8"	$0.08
N-21	5/8"	11	3/4"	1 1/16"	.14
N-22	3/4"	10	7/8"	1 1/4"	.18

SHELDON WASHERS

Heavy, extra thick washers, made from cold rolled bar stock. Case hardened. Hole diameter is 1/32" over bolt size.

Specifications

Number	Bolt Dia.	Outside Dia.	Thickness	Price Each
N-10	1/2"	1"	3/16"	$0.06
N-11	5/8"	1 1/4"	1/4"	.07
N-12	3/4"	1 1/2"	1/4"	.08

SHELDON MOTOR HEAD SPEED LATHES

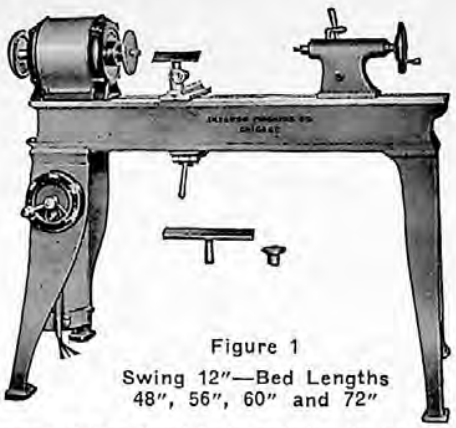


Figure 1
Swing 12"—Bed Lengths
48", 56", 60" and 72"

The improved Sheldon Speed Lathe embodies the latest features and most approved principles in both its mechanical and electrical construction. Particular attention has been paid to safety features.

Bed

The bed is a semi-steel casting, cored and heavily ribbed, insuring exceptional strength with light weight. It is planed flat on top with a machined opening in the center, running the entire length, insuring proper alignment of head, tailstock and tool rest support.

Tailstock

Tailstock is exceptionally rigid with full bearing on bed. It is secured in any desired position along the bed by means of a single lever eccentric clamp. Setover tailstock is furnished on lathes with hand feed carriages.

Tool Rest Support

Tool rest support has full bearing on base plate and is clamped in any position by a single lever eccentric clamp which is located under the bed. Tool rest is rigidly clamped by means of an improved double wedge type binder.

Hand Feed Tool Carriage

When lathes are furnished with hand feed tool carriages, (Fig. 2) V ways are provided for same on front of bed. These carriages have cross feed and compound swivel rests. The compound rest is quickly interchangeable with a special tool rest holder.

Figure 2

On all lathes equipped with Hand Feed Tool Carriages we furnish Set-Over Tailstocks (Fig. 3). The set-over tailstock is of the same general design as our plain tailstock being equipped with the same style single lever eccentric clamp. In addition it is mounted on a base providing cross adjustment. It can be adjusted approximately one inch on either side of the center.

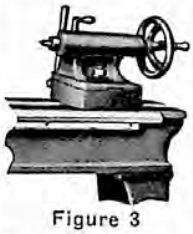


Figure 3

ELECTRICAL EQUIPMENT

Alternating Current 220-Volts, 60 Cycles, 3 Phase

Motor

A special, four-speed, ball bearing motor mounted on the top of the lathe. Speeds 575, 1160, 1750 and 3450 R. P. M.

The stator windings consist of two distinct sets of coils, from each set of which two speeds are obtainable.

The solid end brackets make the motor totally enclosed, excluding all dust and foreign substances. The bearing housings will not leak grease, inside or outside the motor.

The ball bearings take end thrust in either direction. The end brackets are bolted to the frame, permitting removal of rotor from either end.

Motor is Provided with Alemite Lubricating System

Controller

Motor speeds of approximately 575, 1,160, 1,750 and 3,450 revolutions per minute at full load are given by the four running points of the controller.

The controller is mounted inside the headstock leg, a sheet metal cover thoroughly protects it.

It is of the drum type, having brass castings on a micarta insulated shaft. Copper contact fingers, supported by a micarta plate, make firm contact with the drum segments.

Regenerative braking for slow-down is obtained by throwing the controller on the next lower speed. The controller should be moved to the lowest speed point and held there to obtain braking action before being finally turned to the "off" position.

The controller lever is mounted on the front of the leg is provided with positive stops for each controller position and has incorporated in it the line switch arranged so that the switch cannot be operated except when controller is in "off" position. This is a particularly valuable feature as it protects the motor against a heavy current surge in case the switch is accidentally turned on when the controller is in one of the tap running positions.

Specifications

Swing over bed	12"
Swing over T rest	9"
Maximum center distance, 48" bed	26"
Depth of bed	6½"
Width of bed	6¾"
Spindle nose 1⅛" diameter—8 threads, V type.	
Spindle rear 1⅛" diameter—8 threads, V type.	
Centers	No. 2 Morse Taper
Tailstock bearing on bed	7½"
Tailstock spindle diameter	1⅜"
Tailstock spindle length	8¾"
Tailstock spindle travel	5¾"

HAND FEED TOOL CARRIAGE

Carriages bearing on bed	10"
Carriage travel on 48" bed	26"
Cross feed	6½"
Cross feed to compound rest	3½"

	Plain Lathe	Carriage Lathe
Weight 48 inch bed	570 lbs.	720 lbs.
Weight 56 inch bed	600 lbs.	750 lbs.
Weight 60 inch bed	625 lbs.	775 lbs.
Weight 72 inch bed	675 lbs.	825 lbs.

PRICES

LATHES WITH HAND TOOL RESTS

Price with electrical equipment as described above and complete with one spur center, one cup center, one knock-out rod, 1-3" screw chuck, 1-6" face plate, one hand wheel for rear of spindle, one each 6" and 12" hand tool rests, line switch, Alemite grease gun and switch.

48" Bed	56" Bed	60" Bed	72" Bed
$ 300.00	$ 310.00	$ 325.00	$ 340.00

LATHES WITH HAND FEED TOOL CARRIAGES

Price complete with equipment listed above also hand feed tool carriage with compound rest and T rest base and set-over tailstock.

60" Bed	72" Bed
$ 425.00	$ 440.00

PARTS LIST

Spur center, each	$3.50	Knockout rod, each	$1.00
Cup center, each	3.00	6" hand tool rest, each	2.50
3" screw chuck	1.50	12" hand tool rest, each	3.00
6" face plate	3.50	Hand wheel (spindle rear)	3.00
8" face plate	4.00	Ball bearings (motor) each.	3.00

SHELDON MACHINE COMPANY

3253 - 3255 Cottage Grove Avenue, Chicago, Illinois